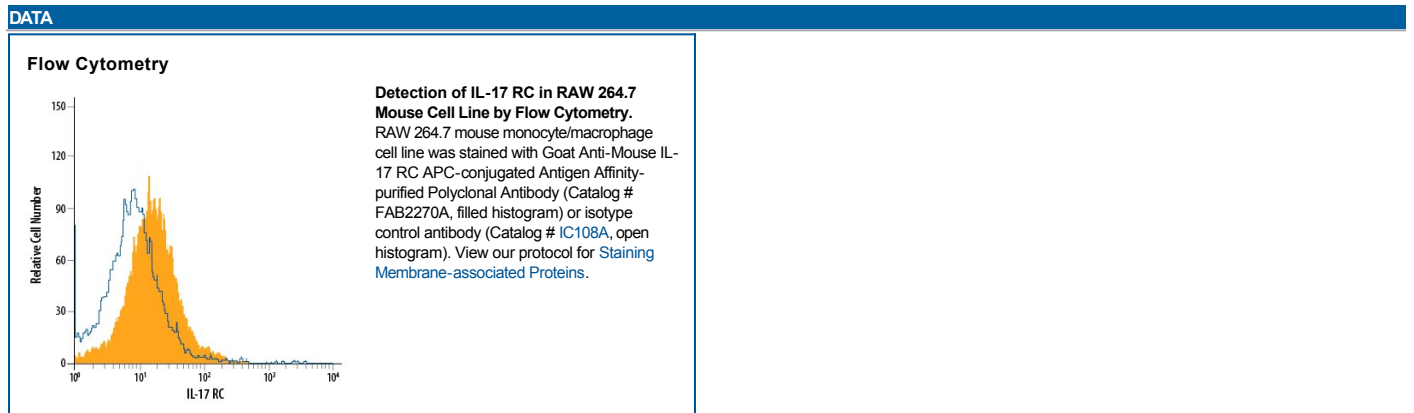


| DESCRIPTION               |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Mouse  |
| <b>Specificity</b>        | Detects mouse IL-17 RC in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human IL-17 RC is observed and less than 5% cross-reactivity with recombinant mouse (rm) IL-17 RD and rmIL-17B R is observed.   |
| <b>Source</b>             | Polyclonal Goat IgG  |
| <b>Purification</b>       | Antigen Affinity-purified  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant mouse IL-17 RC<br>Leu21-Trp465<br>Accession # AAH04759   |
| <b>Conjugate</b>          | Allophycocyanin<br>Excitation Wavelength: 620-650 nm<br>Emission Wavelength: 660-670 nm  |
| <b>Formulation</b>        | Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

| APPLICATIONS   |                                  |               |
|--|----------------------------------|---------------|
| <b>Please Note:</b> Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website. |                                  |               |
|  | <b>Recommended Concentration</b> | <b>Sample</b> |
| <b>Flow Cytometry</b>  | 10 $\mu$ L/10 <sup>6</sup> cells | See Below     |



| PREPARATION AND STORAGE        |   |
|--------------------------------|---|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | <b>Protect from light. Do not freeze.</b><br>● 12 months from date of receipt, 2 to 8 °C as supplied.             |

**BACKGROUND**

IL-17 receptor C (IL-17 RC; also known as IL-17 RL) is an 85-110 kDa member of the IL-17 receptor family. This is one of five families, termed IL-17 RA, B, C, D and E, that comprise the cytokine receptor superfamily (1-6). Not all receptors appear to bind known members of the IL-17 cytokine family. To date, IL-17 RA is reported to bind IL-17A, while IL-17 RB is reported to bind IL-17B and IL-17E (2, 4). Mouse IL-17 RC is a type I transmembrane glycoprotein that is expressed on a variety of nonhematopoietic cell types. Full-length IL-17 RC is synthesized as a 674 amino acid (aa) precursor. It contains a 21 aa signal sequence, a 419 aa extracellular domain (ECD), a 21 aa transmembrane segment, and a 213 aa cytoplasmic region. There are multiple potential N-linked glycosylation sites in the ECD and potential phosphorylation sites in the cytoplasmic tail. Four mouse variants have been identified that have been designated mIL-17 RC (7). The isoform expressed here as an R&D product is an unusual 567 aa form (8). Its precursor contains a 20 aa signal sequence, a 444 aa extracellular region, a 20 aa transmembrane segment and an 83 aa cytoplasmic tail. When compared to the full length mouse IL-17 RC form, this expressed isoform's extracellular region shows absolute aa identity, save for an additional 24 aa insert. In the cytoplasmic region, it is highly divergent and shows virtually no aa identity (8-9). The extracellular region of mouse IL-17 RC shows about 70% aa identity to the equivalent region in human IL-17 RC isoform # 3. IL-17 RC is the cognate receptor for IL-17F (7). In humans, IL-17 RC binds IL-17A with similar affinity, and with IL-17 RA, it forms a definitive receptor for both IL-17A and IL-17F (7). The stoichiometry is unclear; it may form a heterodimer with IL-17 RA, or a heterotrimer with a preexisting IL-17 RA homodimer (4, 7, 10, 11). The heteromeric nature of the receptor may be important given that the predominant form of the IL-17 cytokine is now considered to be an IL-17A:IL-17F heterodimer (4).

**References:**

1. Gaffen, S.L. *et al.* (2006) *Vitam. Horm.* **74**:255.
2. Weaver, C.T. *et al.* (2007) *Annu. Rev. Immunol.* **25**:821.
3. Moseley, T.A. *et al.* (2003) *Cytokine Growth Factor Rev.* **14**:155.
4. Shen, F. and S.L. Gaffen (2008) *Cytokine* **41**:92.
5. You, Z. *et al.* (2006) *Cancer Res.* **66**:175.
6. You, Z. *et al.* (2007) *Neoplasia* **9**:464.
7. Kuestner, R.E. *et al.* (2007) *J. Immunol.* **179**:5462.
8. GenBank Accession # AAH04759.
9. Haudenschild, D. *et al.* (2002) *J. Biol. Chem.* **277**:4309.
10. Toy, D. *et al.* (2006) *J. Immunol.* **177**:36.
11. Haudenschild, D.R. *et al.* (2006) *Prostate* **66**:1268.